MINISTRY OF ADVANCED EDUCATION, TRAINING & TECHNOLOGY

ANNUAL REPORT

FOR THE PERIOD APRIL 1, 1990 - MARCH 31, 1991

PROVINCE OF BRITISH COLUMBIA

92-00268/

The Honourable David C. Lam, C.M., LL.D.
Lieutenant-Governor of British Columbia
Government House
1401 Rockland Avenue
Victoria, British Columbia
V8S 1V9

May it please Your Honour:

I respectfully submit the Annual Report of the Ministry of Advanced Education, Training and Technology for the fiscal year ending March 31, 1991.

Yours truly,

Peter Dueck

Minister

The Honourable Peter A. Dueck
Minister
Ministry of Advanced Education,
Training and Technology
Room 326, Parliament Buildings
Victoria, British Columbia
V8V 1X4

Dear Mr. Minister:

I respectfully submit the Annual Report of the Ministry of Advanced Education, Training and Technology for the fiscal year ending March 31, 1991.

Yours truly,

Gary Mullins
Deputy Minister

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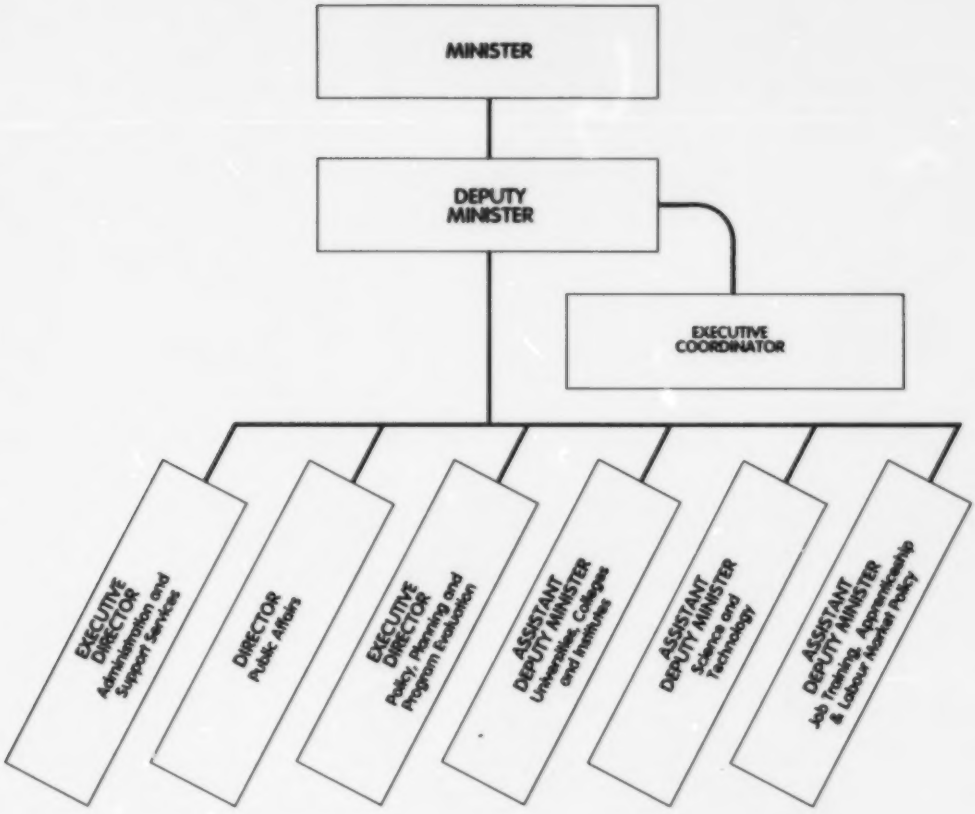
Ministry of Advanced Education, Training and Technology

ORGANIZATIONAL STRUCTURE


MINISTER
DEPUTY MINISTER
EXECUTIVE COORDINATOR
EXECUTIVE DIRECTOR Administration and Support Services
DIRECTOR Public Affairs
EXECUTIVE DIRECTOR Policy, Planning and Program Evaluation
ASSISTANT DEPUTY MINISTER Universities, Colleges and Institutes
ASSISTANT DEPUTY MINISTER Science and Technology
ASSISTANT DEPUTY MINISTER Job Training, Apprenticeship & Labour Market Policy

PREFACE

THE 1990/91 ANNUAL REPORT OF THE MINISTRY OF ADVANCED EDUCATION, TRAINING AND TECHNOLOGY

This Annual Report reflects changes in reporting practices initiated in 1989/90 by the Ministry of Advanced Education, Training and Technology. That year, the Ministry began to produce reports that highlighted the Ministry's goals and illustrated how programming supported those goals.

This Annual Report describes a selection of service-oriented programs--indicators of the Ministry's performance throughout the year. To help the reader relate the Ministry's efforts to its broad objectives, the report groups programs according to the Ministry's main goals:

- building individual potential;
- developing and applying new knowledge; and,
- being responsive in a changing world.

INTRODUCTION

"In the emerging economy of the twenty-first century only one asset is growing more valuable as it is used: the problem-solving, problem-identifying, and strategic-brokering skills of a nation's citizens."

Robert Reich,
The Work of Nations
in the Atlantic Monthly (Feb. '91)

INTRODUCTION

British Columbia is the only Canadian province that combines, in one ministry, the responsibilities for post-secondary education, training in the workplace, and science and technology. These three are so interconnected that developments in one area strengthen the other two. Education develops the talent to conduct the research, create the technology and foster the innovation that leads to economic growth. Economic growth, in turn, creates the demand for a more skilled and knowledgeable workforce. By adopting an integrated approach to these three areas of responsibility, the Ministry of Advanced Education, Training and Technology is enhancing its most valuable, renewable resource--the people of British Columbia.

The Ministry works through many programs to support a broad vision of British Columbia that includes:

- well-educated, healthy people who are productively employed;
- a strong, globally competitive economy that provides a high standard of living;
- a clean, safe environment; and,
- a tolerant, pluralistic society where all people have the opportunity to achieve their potential.

To this end, the Ministry plays a leading role in a Province-wide system of advanced education, skill development, labour market adjustment, and science and technology. The system, which primarily targets adults, comprises:

- universities;
- colleges and institutes;
- private training institutions;
- science and technology organizations;
- business;
- labour;
- federal and provincial ministries; and,
- volunteer, community and professional associations.

Within this system, the Ministry provides leadership and co-ordination, builds partnerships, promotes communication and awareness, and funds a wide range of activities. The mission is to promote development of knowledge and skills so British Columbians can achieve their potential, and to anticipate and respond to the changing needs of society and the economy.

The Ministry is organized into six main divisions:

- Universities, Colleges and Institutes;
- Science and Technology;
- Job Training, Apprenticeship and Labour Market Policy;
- Policy, Planning and Program Evaluation;
- Administration and Support Services; and,
- Public Affairs.

Educators, planners, scientists, and many other professionals and support staff apply a broad range of expertise to achieve the Ministry's three main goals.

Building individual potential

By expanding their knowledge and skills, British Columbians increase their potential for employment, better earnings and a good quality of life. The Ministry helps people access the education, training and skill-updating programs most appropriate to their needs and abilities.

Developing and applying new knowledge

By conducting research, developing technology and stimulating innovation that promotes knowledge-based industries, British Columbia can develop a competitive economy and maintain its environmental integrity. The Ministry's programs help diversify the economy and develop the infrastructure needed to support an expanding set of knowledge-based industries. The Ministry encourages research and innovation. It promotes public awareness of the benefits of science and technology.

Being responsive in a changing world

By anticipating economic and social change, British Columbians can respond more effectively. The Ministry leads an education, training and research system that anticipates--and responds to--the needs of a dynamic economy and society. It develops partnerships, and supports lifelong learning.

EMPLOYEES INTRODUCE SERVICE EXCELLENCE

Employees have teamed up to introduce the concept of service excellence throughout the Ministry of Advanced Education, Training and Technology. Their efforts stem from the Service Quality Guidelines developed by the Government to "put the public first".

During 1990/91--Service Quality's first full year within the Ministry--employees worked to improve service on several fronts. Managers reduced red tape by delegating greater authority to those who deliver services. They made forms and literature more user-friendly. And they began identifying barriers to quality service in an effort to reduce them. A full-time coordinator and a volunteer team of Quality Service Champions have been raising further issues for the Ministry's attention.

Introducing a total concept of service excellence in the Ministry is expected to take two to five years, but it will yield many worthwhile results:

- a totally customer-focused organization;
- employees who are satisfied with their jobs;
- clients who are satisfied with Ministry service; and
- programs and services that are more cost-effective.

BUILDING INDIVIDUAL POTENTIAL

"To be relevant, general education must teach the basic skills of communication, the knowledge needed to function effectively in modern society, and the ability to acquire additional skills and information, as required, in a rapidly changing technological society."

Economic Council of Canada
Back to Basics

The Province is facing new but exciting challenges stemming from growth in information-intensive industries, the use of advanced technology in traditional industries and shifts in the Province's job market. To help British Columbians--in all regions--meet these challenges, the Ministry of Advanced Education, Training and Technology is working along several fronts.

During 1990/91, key efforts included:

- improving access to educational and training programs;
- assisting students needing financial support;
- increasing training opportunities in nursing;
- expanding Native participation in post-secondary education and apprenticeship training;
- evaluating and improving programs that encourage students to develop careers in science and technology; and
- addressing special problems and concerns of British Columbia's youth.

CREATING GREATER ACCESS--YEAR II

In 1989, the Government introduced "Access for All"--a Province-wide program to help the post-secondary education system meet the needs of British Columbians well into the next century. Over a six-year period, "Access for All" commits $480 million in new operating funds for post-secondary education institutions and $210 million for new facilities. Besides meeting future demands for well-trained employees, the program was introduced to address such problems as low student participation rates in advanced education, heavy demands for post-secondary education in the Fraser Valley, a forecasted shortage of teachers (especially in rural and remote areas), and a functional illiteracy rate of 17 per cent among British Columbians.

During 1990/91, the second year of "Access for All", the Ministry granted $69.06 million to post-secondary institutions to create another 4,066 student spaces. Of these spaces--which included openings for literacy training--1,476 were created for career, technical and vocational training at colleges and technical institutes. The remaining 2,590 spaces boosted academic education opportunities at the universities and colleges. The fast-growing Fraser Valley region alone received 1,243 of the 4,066 new spaces. Overall, the "Access for All" program created a total of 8,466 new student spaces during its first two years.

In 1990/91, the Ministry also funded 1,228 new teacher training spaces at provincial universities and through university/school district rural training programs, raising the total to 1,839 new spaces over the two years.

Responding to a variety of workplace needs, colleges and institutes created 20 new programs in such fields as criminal justice and hospitality tourism at Vancouver Community College's Native Education Centre, public safety dispatch and environmental waste management at Kwantlen College, Native social work at the College of New Caledonia, and truck driver training at Northern Lights College.

A key component in the "Access for All" program was the expansion of degree programs in 1989/90 through Malaspina College, Cariboo College and Okanagan College. These colleges worked in partnership with provincial universities to provide classroom instruction leading to full university degrees. By 1990/91, 851 third- and fourth-year students (including 230 education students) took part in one of the six

CRITICAL NEEDS IDENTIFIED IN THE FRASER VALLEY

For the past two years, the Ministry of Advanced Education, Training and Technology has focused special attention on the needs for post-secondary education in the Fraser Valley, the fastest growing region in British Columbia. In 1989, the Minister convened a committee of college presidents and the President of Simon Fraser University to study the region's strong demand for advanced education programs.

To meet enrollment demand, the Ministry added 1,164 student spaces in Simon Fraser University, Kwantlen College, Fraser Valley College and Douglas College through the 1989/90 "Access for All" program. Another 1,483 spaces were created in 1990/91.

In December 1989, the presidents' committee recommended the expansion of the Valley's university and colleges, and the creation of a new degree-granting institution. Subsequently, the Ministry appointed the Fraser Valley Access Consultation Group to seek public input on these recommendations.

The Group reported, in March 1991, that presentations made in 12 Fraser Valley communities were unanimous. They confirmed an immediate need for new post-secondary education programs in the Fraser Valley, including undergraduate academic, career, technical and trades programs.

BUILDING INDIVIDUAL POTENTIAL

COLLEGE PROGRAMS SUCCESSFUL

College programs in British Columbia are helping students realize their goals. A joint committee—involving the Ministry of Advanced Education, Training and Technology and several college representatives—surveyed: (1) college graduates from 1989 who pursued occupational programs; and (2) college students who studied academic subjects. The committee found that:

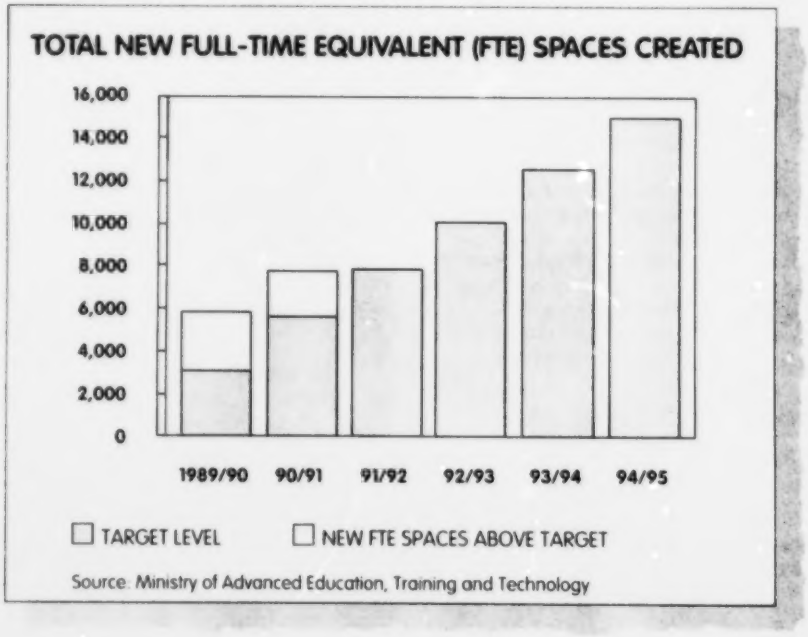
- within a year of graduation, 91 per cent of the job-seeking graduates had found employment related to their training;
- 71 per cent of the academic students who wanted to transfer to a university—and who had the necessary grades—went on within a year;
- only eight per cent of the graduates and three per cent of the academic students were unemployed a year after leaving college;
- 74 per cent of the graduates and 68 per cent of the academic students rated their college studies "definitely worthwhile;" and
- only 15 per cent of the graduates who had training-related jobs said their computing skills were inadequate for their work.

degree programs offered at the colleges: arts, science, education, nursing, business and social work.

To make advanced education more accessible to the disabled throughout British Columbia, the Ministry increased funds for improving access to buildings to $500,000, an increase of $100,000 over its 1989/90 budget. It also invested $140,000 (compared with $90,000 in 1989/90) in providing library services for visually-impaired students. The number of full-time equivalent student spaces in Adult Special Education (ASE) programs rose to approximately 711 from 667 in the previous year. These 711 spaces support about one thousand students during the course of a year. The ASE grant also provided support services to approximately 4,500 students with disabilities enrolled in regular programs.

puses for Okanagan College, a new Richmond campus for Kwantlen College, a new Courtenay campus for North Island College, a Health Sciences Centre for the Fraser Valley College in Chilliwack, a Visual Arts Building for the University of Victoria, a building for the University of British Columbia's computer science department and its proposed Centre for Integrated Computer Systems Research, and new libraries for Capilano College and Camosun College. The Ministry also provided land, operating costs and planning funds for the new University of Northern British Columbia in Prince George.

Besides the development of new campuses and buildings, capital projects included maintenance and improvement of existing facilities and the purchase of furnishings and equipment.



To create room for growth in post-secondary institutions in 1990/91, the Ministry committed $218 million for capital works projects--an increase of $91 million over the previous year's "Access for All" commitment.

For instance, funding was earmarked for new Salmon Arm and Kelowna cam-

Ahead

By 1994/95, the Ministry hopes to have added 15,000 student spaces in university degree programs, significantly raising the participation rate in advanced education. Teacher training spaces will continue to increase over the next few years, address-

ing the anticipated shortage. Further, the "Access for All" program is expected to fund more post-secondary programs, including the addition of fine arts programs and the expansion of social work programs at British Columbia's university-colleges beginning in September 1991.

es in the labour force is not sufficient to eliminate the shortage.

The Ministry of Advanced Education, Training and Technology and the Ministry of Health introduced a joint, five-year plan to increase the supply of nurses. They adopted a two-pronged approach:

Child care specialist with young patient.

PROGRAMS ENCOURAGE DONATIONS

British Columbia has committed $150 million over eight years to match private-sector donations to the Province's three universities. Under its University Matching Program, the Government matches each dollar donated, encouraging support from local, national and international donors. Private sector donations have increased by an estimated four times as a result of the program.

Universities use these funds to establish endowments for scholarships, bursaries and research chairs; purchase academic and research equipment; and plan and construct new buildings. For example, during 1990/91, the Government contributed:

- $7 million to the construction of a residence for graduate students, researchers and academics at the University of British Columbia;
- $63,000 in initial funding to build new daycare facilities at the University of Victoria; and
- $1 million to supplement instructional and research facilities at Simon Fraser University's downtown campus, Harbour Centre, including the final outfitting of the language laboratory for the David Lam Centre for International Communication.

In February 1990, the Government also established a $5-million matching program at the British Columbia Institute of Technology.

ADDRESSING THE NURSING SHORTAGE

British Columbia is not exempt from a continent-wide shortage of nurses. A Ministry of Health nurse manpower study done in 1988 estimated that the Province needs another 2,000 nurses to fill vacant positions. The annual net increase of 700 nurs-

- expanding training opportunities in nursing; and,
- reducing the number of nurses leaving the profession.

The Ministry of Health is addressing the issues of retaining staff and providing additional training spaces at clinics. The Ministry of Advanced Education, Training and Technology is funding additional training spaces in the following programs:

ASSISTANCE FOR LAID-OFF EMPLOYEES

To reduce hardships caused by company closures, the Ministry of Advanced Education, Training and Technology works through Industrial Adjustment Service (IAS) committees funded by the federal and provincial governments. These committees bring together employers, employees and unions (where applicable) to find ways to ease the adjustment process.

In June 1990, Brenda Mines in Peachland shut its doors permanently, displacing about 400 workers. The IAS committee set up an out-placement office to help employees find jobs. It assessed the skills of the workers, recorded them in a computerized databank, and offered training and upgrading services. It contacted all mines across Canada and other potential employers to search for job opportunities for the workers. The local Canada Employment Centre, Community Futures and Brenda Mines shared relocation expenses and interview costs not covered by prospective employers.

Within a month, about 40 workers had found new jobs, and by the end of March 1991, 218 more were employed--leaving only 17 individuals still seeking jobs. Brenda Mines agreed to retain 38 employees for three to five years to work on clean-up and site reclamation. Noranda, the parent corporation, retained 22 workers. About 40 employees chose an early retirement option, and another 36 employees, aged 55 to 64, applied for income support under the Canada-British Columbia Program for Older Worker Adjustment (POWA). POWA is a joint federal/provincial program aimed at helping older workers who have few prospects for re-employment following a major permanent layoff.

- Basic Registered Nursing;
- Registered Nurse Refresher;
- Psychiatric Nurse/Licensed Practical Nurse Access - upgrading to Registered Nurse; and,
- Advanced Specialty Training.

During 1990/91--the first year of the five-year plan--the Ministry spent $3.19 million to fund 221 new training spaces at Camosun, Cariboo, Douglas, Fraser Valley, Kwantlen, Malaspina and Vancouver Community Colleges, and the British Columbia Institute of Technology. The Institute is offering all the Advanced Specialty Training programs and addressing urgent needs for training in Emergency, Critical Care, Neo-natal and Paediatrics, and Obstetrics programs.

Through this plan, the Ministry of Advanced Education, Training and Technology hopes to increase the total number of nurse training spaces to 311 by 1995/96, significantly reducing the Province's nursing shortage.

MEASURING THE VALUE OF THE SCHOOL SCIENCE PROGRAM

During 1990, the Ministry commissioned an evaluation of its Scientists in the Schools (SIS) program. SIS coordinates visits by volunteer scientists, engineers and technologists to classrooms throughout the Province to excite students about science. The volunteers provided hands-on demonstrations, field trips and discussions with students in Grades 4 to 7 and Grades 10 to 12. As role models they help shape the perceptions of their professions and encourage students to consider science-related careers. Since SIS was established in January 1989, a total of 350 volunteers visited approximately 90,000 students.

Science World British Columbia administers the program for the Ministry, paying all expenses for the volunteers. Costs in 1990/91 were $150,000, covering 602 presentations.

The evaluation of student responses in Grades 10 to 12 found that:

- the program was effective at conveying information and raising awareness of science and technology;
- the program increased students' interest in enrolling in math and science courses; however,
- the program also drew attention to a need to provide information to scientists on being effective presenters; this work is now underway.

ASSISTING STUDENTS FINANCIALLY

The British Columbia Student Assistance Program (BCSAP) serves students who need financial support for post-secondary education. The program aims to ensure that limited financial resources do not prevent residents--in any region--from getting the education they want.

Administered by the Ministry of Advanced Education, Training and Technology, BCSAP supplements funds available through savings, investments and family financing. 1990/91 saw an increase of approximately 11.0 per cent in the number of students qualifying for BCSAP awards, and 17.7 per cent in the total value of loans and grants made available compared to the previous fiscal year.

BCSAP includes several forms of assistance:

Student Loans

The Government approves and guarantees student loans, but banks or credit unions advance the money. The Government also pays all interest charges until the student completes school. Repayment of the loan begins six months later. There are two loan programs, both based on financial need:

- the Canada Student Loan Program (federally funded and guaranteed, and provincially administered) that benefited 32,666 British Columbia students in 1990/91. Value of loans approved in 1990/91: $103 million.
- the British Columbia Student Loan Program (provincially funded and guaranteed) that helped 16,736 students in 1990/91. Value of loans approved in 1990/91: $52 million.

Equalization Fund

About 8,700 first- and second-year students in post-secondary studies received grants for expenses beyond their basic education costs in 1990/91. Equalization grants reduce, but do not eliminate, the need to borrow. Cost: $28.31 million.

Supplemental Fund

About 395 students, proceeding to a college program after completing their Adult

Basic Education in 1990/91, were eligible for additional assistance--$1000 each in non-repayable funds. Cost: $0.3 million.

Other Programs

A variety of programs complemented basic assistance, including:

- a Loan Remission Program that reduces student loans to $12,000 (first degree/diploma) and as much as $16,000 (second degree/diploma) for eligible graduating students;
- Relocation Assistance for eligible students who must relocate to attend a post-secondary institution at least 50 kilometres away;
- the Premier's Excellence Awards for top Grade 12 students (in each college region) who plan to attend a provincial post-secondary institution;
- Work Study for needy students;
- Adult Basic Education Student Assistance Program for students in Adult Basic Education programs in secondary and post-secondary institutions;
- Co-op Education for students combining career experience and studies;
- Graduate Student Teaching and Research Assistantships for graduate university students employed as teaching or research assistants;
- Athletic Awards for students on university and college sports teams;
- the Matching Endowment Fund for students earning bursaries and scholarships (the Government matches endowments from corporate and private donations to universities and colleges); and,
- Part-time Assistance Grants, a pilot program introduced in 1990/91 for students who request assistance but who do not qualify as full-time BCSAP students.

WORKING WITH NATIVE PEOPLE IN APPRENTICESHIP

The Province's Apprenticeship Training System actively addresses the need for well-trained people in almost 200 trades. It involves employers who provide on-the-job training, apprentices who fulfil training and job obligations, the Ministry of Advanced Education, Training and Technology which provides in-school technical training and counselling, and the federal government which provides financial support. During 1990/91, the participation of British Columbia's Native people, as both employers and apprentices, grew.

The Ministry contracted the services of Celtic Shipyard (1988) Ltd. of Vancouver to deliver training programs for all of British Columbia's apprentices in the boatbuilding, shipfitting and shipwright programs. Owned and operated by the Musqueam Indian Band, the shipyard provided training for about 50 apprentices during 1990/91, using on-site training facilities and classrooms.

About 150 registered Native apprentices were indentured to Band Councils throughout the Province during 1990/91. Most took part in the four-year carpentry program, applying their new skills to building projects within their own communities. For example, 11 members of the Iskut Indian Band in northwestern British Columbia completed their carpentry apprenticeship, built 38 houses, and signed a contract to build an addition for a local school.

The Ministry co-ordinated community colleges, and provincial and federal agencies in many of the initiatives that encouraged participation of Native people in the apprenticeship program. However, encouragement also came from the Native people themselves. As the successes of one band became known to others, interest in apprenticeship grew. Native people reported that the program boosted morale and instilled further pride in their communities.

EVALUATING GRADUATE SCHOLARSHIP PROGRAM

In 1980, the Science Council of British Columbia launched the Graduate Research Engineering and Technology (GREAT) scholarship program. It supports graduate science and engineering students who collaborate with industry on applied research projects, such as developing vehicle and manipulator controls for use in space and underwater environments. Since GREAT's inception, the Council has approved 306 scholarships worth more than $6 million in total.

To assess the effectiveness of this program, the Science Council and the ministry responsible--the Ministry of Advanced Education, Training and Technology--authorized an evaluation of GREAT from 1980 to

STRATEGY TO HELP NATIVE STUDENTS

Under the Province's "Access for All" program, the Ministry invested $3 million during 1990/91--50 per cent more than the previous year--to help Native students access a post-secondary education. Based on recommendations from the Provincial Advisory Committee on Post-Secondary Education for Native Learners, the Ministry began to implement a new provincial strategy to increase Native participation in advanced education. This strategy included:

- providing funds to hire Native education coordinators at 13 public post-secondary institutions;
- providing funds to develop a new curriculum and evaluate existing curricula for Native education programs;
- establishing a Northern Distance Learning Pilot Project through the Open Learning Agency;
- hiring a Special Advisor on Native education to help the Ministry provide programs and services for Native students; and
- making appointments of Native people to governing boards at a number of post-secondary institutions in British Columbia.

BUILDING INDIVIDUAL POTENTIAL

NEW POLICY AND PROJECTS FIGHT ILLITERACY

About 360,000 adults in British Columbia are functionally illiterate. They do not possess the basic reading and writing skills needed to cope with everyday demands.

To fight the enormous personal, social and economic problems of illiteracy, the Ministry of Advanced Education, Training and Technology announced a new policy: starting on April 1, 1991, all Ministry-funded adult literacy programs in community colleges will be tuition-free.

This policy reinforced other Ministry projects introduced during 1990, designated International Literacy Year by the United Nations. Sharing costs with the federal Secretary of State, the Ministry introduced 33 literacy projects in 1990/91, including:

- a reading workshop for parents at Cariboo College;
- research on literacy at the University of British Columbia; and,
- Native literacy tutor training at the College of New Caledonia.

Within the Province's adult education system, there were 696 full-time student spaces in the regular literacy program during 1990/91. Another 90 spaces were available to those who were learning English as a second language and were also illiterate in their native languages.

1990. Results reported in March 1991 indicated that:

- 288 students received GREAT awards;
- 20 to 35 GREAT graduates are now doing applied research and development with industry in British Columbia;
- 80 to 90 GREAT graduates are still working or studying in the Province;
- 13 industrial sectors benefitted from GREAT research projects; however,
- 21 per cent of the students never visited their industrial collaborator and 75 per cent spent 10 or less hours per week on the collaborator's site. A key finding was that higher levels of collaboration corresponded with higher opinions--among collaborators--of GREAT's success. Further, GREAT research results were more likely to be implemented if collaboration had taken place.

Forestry consultant measuring age of tree.

Although the GREAT scholarship program appeared to meet most of its objectives, the evaluation report recommended several improvements, including:

- encouraging and monitoring collaboration; and,
- focusing more on the needs of industry.

In response, the Science Council has begun working on program improvements.

TAKING ACTION FOR BRITISH COLUMBIA'S YOUTH

Created in the International Year of Youth (1985) to link young British Columbians with the Government, the 17-member British Columbia Youth Council represents youth from various regions, social and ethnic backgrounds, and career interests. The Council:

- organizes regional discussions with youth to identify common ideas, goals and opportunities;
- presents the views and aspirations of British Columbian youth to the Government; and,
- provides input that helps develop programs and services for young people.

It is one of four provincial youth councils in Canada.

During 1990/91, the Council recommended that Youth Grants--totalling $425,085--be used to fund 26 projects, including:

- setting up a recreation leadership training program for recreation directors and youth leaders from six to eight Native bands or groups throughout British Columbia;
- assisting the Vancouver Youth Theatre create and perform a play about the experiences of new Canadians--a play that aims to increase tolerance towards immigrants; and,
- helping the Kelowna and District Boys and Girls Club train and employ three counsellors to work with local street youth.

Preliminary results from projects conducted during 1990/91 include:

- the participation of 15 to 20 youths from the Oclucje Reserve and the town of Zeballos in a Talking Circle to build self-esteem and pride; and,
- the use of a new Dawson Creek youth centre, involving 150 young people per day on weekends and 75 per day during the week.

During 1990/91, the Council developed strong regional committees in six of the eight development regions in British Columbia. With the appointment of new Council members in early 1991/92, the remaining regions will begin revitalizing their committees. These regional committees will provide grassroots input to the Council on three priority issues identified for 1991/92: national unity, youth crime and rural/urban disparity.

DEVELOPING AND APPLYING NEW KNOWLEDGE

"Today the world competes on brainpower. Knowledge has become the primary material in the world economy. Our country's system of education must be the basis of a powerful competitive advantage."

Canadian Manufacturers Association
National Task Force on Higher Education

To keep pace with the rapid social, economic and technological changes that will take place in this decade, British Columbians must be innovative. Industry and educational institutions must invest in the research and development of new products and processes. They must also find new ways to protect the environment and improve the quality of life of British Columbians. The Government's role is to assist by providing leadership, coordination and funding.

In 1990/91, the Ministry of Advanced Education, Training and Technology initiated activities under its Science and Technology Fund--a major financial commitment to research and development--and supported many research projects, ranging from the building of a hydrogen-powered bus to the development of a "reasoning" computer.

INVESTING IN SCIENCE AND TECHNOLOGY

British Columbia's ability to compete in the world market depends on its investments in science and technology. In 1990, the Government made its most significant commitment to applied research and development ever. Through legislation, it established a Science and Technology Fund which consolidates all Ministry of Advanced Education, Training and Technology science and technology programs, and provides funding for new provincial science and technology activities.

The purpose of the Fund is to provide long-term benefits to the Province by supporting projects that:

- diversify the economy;
- enhance competitiveness in new technologies and traditional industries;
- create new export industries; and,
- promote a clean environment and quality of life.

Consulting with industry, Government and educational institutions, the Ministry created "A Framework for Action" that sets out the principles and processes for administering the Fund. Proposed projects are judged through peer review by experts from industry, Government agencies, and the scientific and academic communities.

During 1990/91, the Fund provided $30.3 million in support of science and technology activities. Highlights of projects receiving assistance under each of the Fund's five categories are shown in the Appendix.

Marine biologists at work in lab in Sidney, B.C.

BUILDING A HYDROGEN-FUELLED TRANSIT BUS

Reducing air pollution is one reason behind a British Columbia-Canada project to produce a prototype of a small transit bus powered by a hydrogen fuel cell. The bus will not emit carbon dioxide or any other pollutants because the only byprod-

RESEARCH EXCELLENCE RECEIVES SUPPORT

In 1990, the Ministry of Advanced Education, Training and Technology committed $20 million of its Science and Technology Fund over four years to support the Province's involvement in the national Networks of Centres of Excellence Program. Chosen through competition by an international panel and announced by the federal Minister of State (Science and Technology) in 1989/90, these Networks co-ordinate top-level research at universities, institutes, private companies and government agencies across the country. The Program challenges researchers to boost Canada's performance in science and technology, develop world-class engineers and scientists, and transfer new technological knowledge to industry.

British Columbia universities and companies are active in 14 of the 15 Networks, and they are the lead agencies in four:

- Canadian Bacterial Diseases Network;
- Canadian Genetic Diseases Network;
- Centre of Excellence in Molecular and Interfacial Dynamics (CEMAID); and,
- Protein Engineering Network of Centres of Excellence (PENCE).

The 15th Network, Promoting Independence and Productivity in an Aging Society, was announced separately in 1990.

Research results in such fields as bacterial and genetic diseases will benefit British Columbians directly. Further, research from all Networks will enhance the manufacturing, resource and high technology sectors across the Province.

Of the Program's $240 million in federal funding, British Columbian institutions are receiving 17 per cent ($44.2 million). Other economic benefits include the creation of an anticipated 550 direct jobs and 820 indirect jobs.

uct from the hydrogen fuel cell is warm water. If the prototype meets B.C. Transit's performance requirements, the project will eventually yield a street-ready, full-sized transit bus.

In October 1990, the Ministry of Advanced Education, Training and Technology committed $3.84 million from the Science and Technology Fund to the three-year, $4.84-million project. The Ministry paid $1.3 million into the project during 1990/91. The project involves input from international experts from Canada, the United States and the United Kingdom.

A world leader in hydrogen fuel cell development and a key player in the bus project, Ballard Power Systems Inc. of North Vancouver has worked on the fuel cell since the mid-1980s. The cell is a self-contained, energy-generation system that is portable and capable of being refuelled. It uses hydrogen in an electrochemical process to release energy without combustion.

By the end of March 1991, project leaders had identified system requirements, approved a preliminary design and selected a bus model to be modified. When the prototype is completed, it will receive laboratory testing before road tests begin—likely in 1992.

If all goes as planned, the final phase of this project will be a production phase. The hydrogen fuel cell powered bus will be the first of its kind in the world and is expected to attract international interest.

DEVELOPING INTELLIGENT COMPUTERS

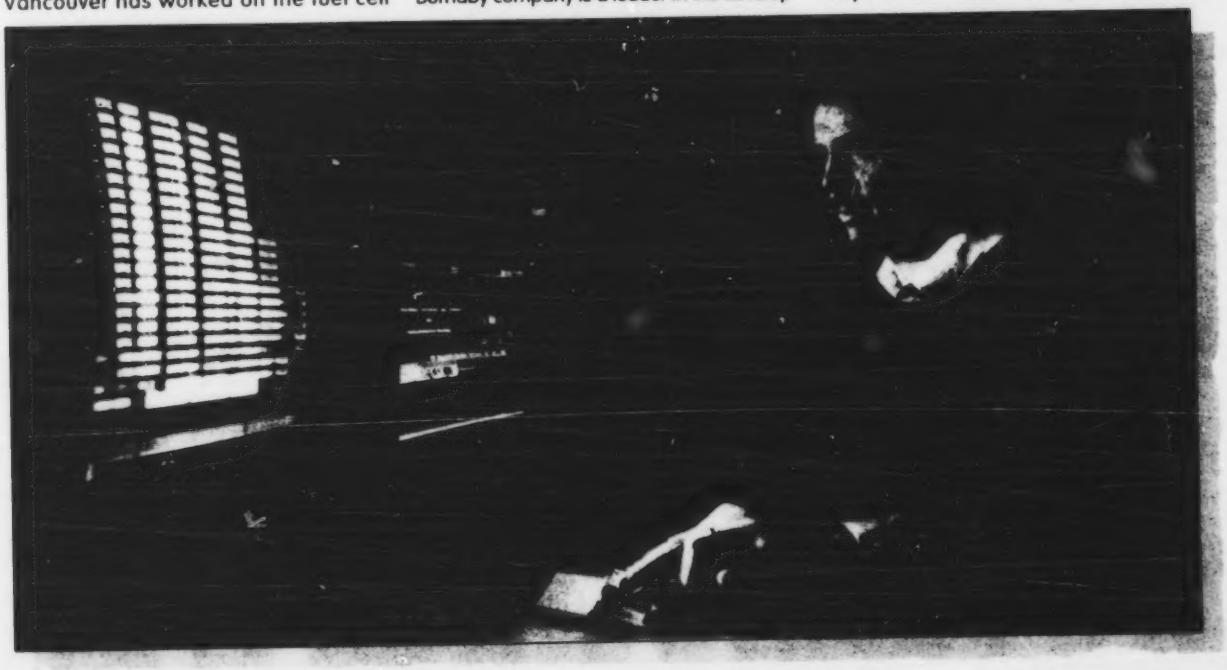
Enabling computers to anticipate problems and devise solutions is the goal of a five-year, $6.5-million research and development project led by MPR Teltech Limited. The Burnaby company is a leader in the development of new telecommunications techniques and systems, and one of Canada's largest research and development firms.

The Intelligent Graphic Interface (IGI), which helps computers think more like humans, can be used in control rooms that monitor complex operations in pulp and paper processing, hydro-electric generation and distribution, and telephone networks. Control room operators can use IGI to make complex decisions rapidly, increasing efficiency and reducing human errors that are potentially damaging to the environment and costly to industry.

Initiated during 1990/91, the IGI project received support from the federal and provincial governments, and the industrial and academic communities. The Ministry of Advanced Education, Training and Technology invested $408,000 from the Science and Technology Fund, the first payment of its total $1.7-million commitment to the project.

The five-year federal contribution of $2.4 million was committed through PRECARN Associates, a nonprofit corporation of national high-tech companies and Crown corporations. IGI is the only PRECARN project in western Canada, and the first in Canada to involve a provincial government.

Another $2.4 million in support for IGI came from MPR Teltech's partners in the project: Simon Fraser University, H.A. Simons, Digital Equipment of Canada, Hewlett Packard Canada, Shell Canada, TransAlta Utilities and Xerox Research Centre of Canada.



Control central at Hi-Tech Systems Ltd., Victoria, B.C.

BEING RESPONSIVE

"It cannot be overemphasized that in tomorrow's world, occupational shifts will be commonplace for individuals; periodic episodes of retraining will be necessary, making the "ability to learn" a key skill."

Economic Council of Canada
Back to Basics

Providing leadership that anticipates and responds to the needs of a changing society is a major challenge. The Ministry of Advanced Education, Training and Technology tries to meet that challenge by identifying needs in such areas as research and employment, and planning the programs necessary to help British Columbians realize new opportunities.

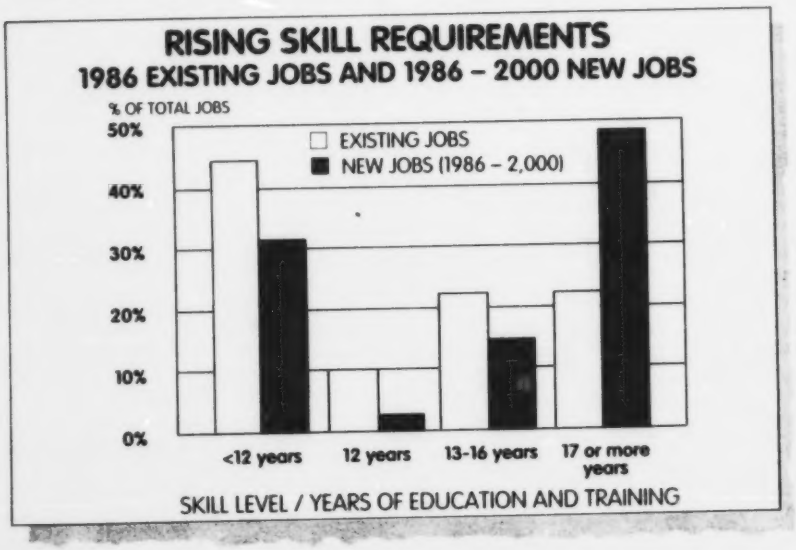
During 1990/91, the Ministry's efforts included:

- establishing, in law, a new university for northern British Columbia;
- supporting the development of a School of Business at the University of Victoria and new college campuses;
- increasing the number of facilities offering programs and services for employers and employees; and,
- helping businesses finance research and development.

RESPONDING TO RISING ENROLLMENT

During 1990/91, the Ministry of Advanced Education, Training and Technology app oved the construction of a new North Kelowna campus to help Okanagan College meet the region's rising demand for post-secondary education. The College acquired 98.34 hectares of land for $2.6 million and completed plans for instructional and support space. The Ministry provided another $4.4 million for site servicing.

The need for a new campus was heightened by the "Access for All" initiative that created a university-college at Okanagan College in 1989. Since then, the College has worked with the Universities of Victoria and British Columbia, offering four-year degree programs in nursing, education, arts and science. These programs led



NEW PROJECT FOCUSES ON HUMAN RESOURCE DEVELOPMENT

In February 1991, the Ministry of Advanced Education, Training and Technology launched the British Columbia Human Resource Development Project. It brings together significant players in the fields of education, training and retraining to find ways of developing the potential of the Province's most valuable resource--the people of British Columbia.

The Ministry appointed a Project Director, Dr. Paul Gallagher, President of Vancouver Community College, and a Project Steering Committee, which includes representatives from labour, industry and education institutions and agencies. The Committee identified significant issues and began planning workshops, research papers, seminars and interviews to address these issues. Results from these activities will help the Committee form a framework for guiding decisions related to human resource development.

COUNCIL GUIDES SCIENCE AND TECHNOLOGY INITIATIVES

The Premier's Advisory Council on Science and Technology (PACST), composed of business and academic leaders in British Columbia, advises the Premier on a wide range of science and technology matters, and recommends policy direction. Although PACST provides strategic advice directly to the Premier, it is supported by the Science and Technology Fund.

to an increase in College student enrollment of more than 25 per cent and created the need for an additional 200,000 square feet of space by 1992. The existing Kelowna campus of Okanagan College was not able to accommodate such an expansion.

Plans for the $30.7-million North Kelowna campus construction project included an arts building, library, science building, student services centre and central plant. All except the science building should be ready to receive students by the fall of 1992 when the new campus is scheduled to open.

SURREY CAMPUS FOR KWANTLEN COLLEGE

The official opening of Kwantlen College's Surrey campus in August 1990 marked a much needed move from inadequate, leased space to permanent, high-quality facilities. The population growth in the Kwantlen College region, which includes Surrey, Richmond, Delta and Langley, has exceeded all other regions in the Province. The Ministry of Advanced Education, Training and Technology responded to the strong educational needs in Surrey by approving the $18.5-million, eight-hectare campus, which accommodates 3,500 students.

The new campus comprises 27 classrooms, a 125-seat lecture theatre, and provides increased capacity in science, business, fine arts, computer labs, and adult basic education facilities, as well as library, cafeteria, student study and lounge areas.

CREATING A UNIVERSITY FOR NORTHERN BRITISH COLUMBIA

Responding to widespread public support for an autonomous, degree-granting university to serve northern British Columbia, the Government passed the University of Northern British Columbia Act on July 23, 1990. The Act provided for an Interim Governing Council (IGC) to fulfill the functions of a Board of Governors and a Senate during the University's formative years.

After the appointment of the IGC, the Council hired Professor Geoffrey Weller as the founding President and chose a 200-hectare site in Prince George as the main campus of the University of Northern British Columbia. The Council also helped establish a committee involving the University and the three northern colleges (The College of New Caledonia, Northern Lights College and Northwest Community College) to find the best ways of co-ordinating and integrating their educational programs. In addition to the programs offered at the Prince George Campus, the University will attempt to offer as many courses as possible throughout northern regions of the Province.

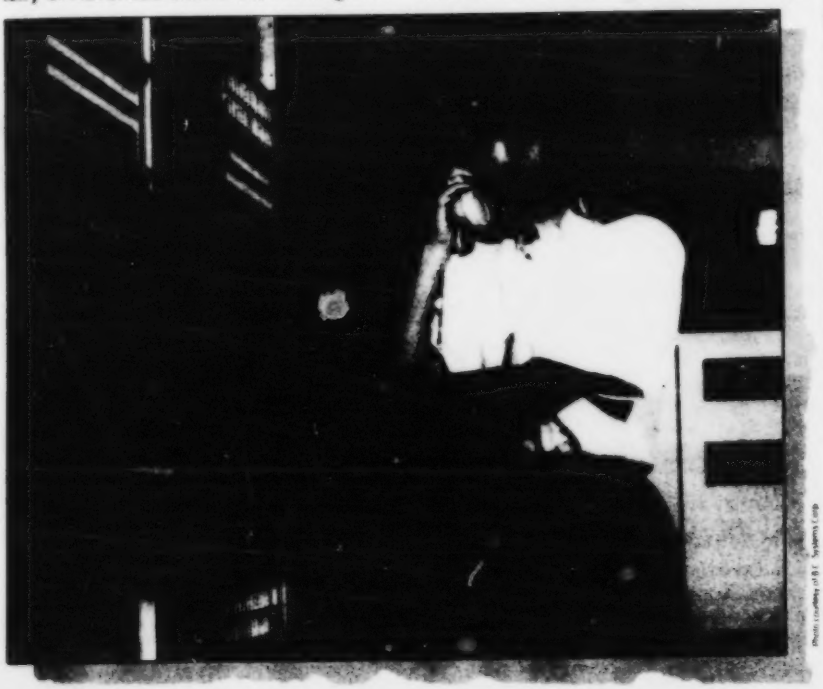
To involve the community, the Act also established the University of Northern British Columbia Foundation. It will conduct a major, private fund-raising initiative and administer the donations, which will be held in trust. Interest from these donations will fund scholarships, bursaries, research chairs, equipment, new facilities and other projects. In 1990/91, the Ministry of Advanced Education, Training and Technology made Crown land available for the Prince George campus, allocated $2.1 million to the operating costs of the University and provided $8 million in planning funds.

EXPANDING THE TEC NETWORK

British Columbia expanded its Training and Enterprise Centre (TEC) Network--reaching Terrace in September 1990 and Prince George in January 1991. Through this network, private and public agencies co-operate as partners to promote common interests in post-secondary education, human resource development and employment training. Other centres were established in Kamloops in 1988 and Nanaimo in 1989.

Each TEC offers a co-ordinated, one-stop service for both employers and employees. It provides businesses and individuals with resources, programs and services that are tailored to local needs. For example, it offers help in writing business plans, designing marketing programs, finding training opportunities and developing human resources. It also provides up-to-date information for planning economic growth.

The particular partners in any TEC vary by community, but they all include the Ministry of Advanced Education, Training and Technology and other agencies involved with education, government, business, labour and community concerns.



Computing and telecommunications technology in the public service.

Partners in the Terrace TEC include:

- the Terrace and District Chamber of Commerce;
- the Skeena Labour Marketing Development Committee; and
- the 16-37 Community Futures (a group helping to develop communities along Highways 16 and 37).

The Prince George TEC involves:

- the Employment Action Group;
- the Enterprise Development Centre; and,
- the Prince George Region Development Corporation.

Each TEC centre is linked with other communities in its region through printed materials and touchscreen microcomputers. These computers make it possible to access TEC information and services from a variety of locations. The Terrace TEC is linked with the communities of Houston, Stewart and Kitimat. The Prince George TEC is linked with Williams Lake, Robson Valley, McKenzie and Burns Lake.

OPENING A NEW BUSINESS SCHOOL

To address the strong demand for business programs in British Columbia, the Ministry of Advanced Education, Training and Technology approved the University of Victoria's new School of Business, started in September 1990.

The new School, which provides programs leading to a Bachelor of Commerce degree, accepted 190 students in its first year. It offers each student a broadly based education in business and liberal arts, training in the functional areas of business administration, and an opportunity to specialize in one of three areas of concentration:

MORE SUPPORT FOR DISABLED

In December 1990, the federal and provincial governments signed a three-year agreement to renew the funding of vocational rehabilitation for persons with permanent mental or physical disabilities. Each government contributed $18.47 million for the fiscal year 1990/91 with the provincial portion being shared by the Ministry of Advanced Education, Training and Technology ($2.81 million), the Ministry of Labour and Consumer Services ($10.16 million) and the Ministry of Health ($5.50 million).

More than 200,000 British Columbians between ages 15 and 64 are disabled. Of these, about 56,800 are unemployed yet able to work in some capacity. The Vocational Rehabilitation Service (VRS) of the Ministry of Advanced Education, Training and Technology plays the lead role in co-ordinating comprehensive programs to help persons with disabilities gain employment and financial independence. Focusing on abilities rather than disabilities, the service helps individuals develop vocational goals and training plans, reflecting their needs as well as the needs of the workplace.

In 1990, the provincial government also introduced an independent appeal procedure for individuals denied vocational rehabilitation services. This appeal procedure will help ensure fairness and equal opportunity for all who apply for the services.

PRIVATE POST-SECONDARY EDUCATION COMMISSION FORMED

In March 1991, the Ministry announced the formation of the Private Post-Secondary Education Commission. In 1992, the Commission will assume sole responsibility for the mandatory registration and voluntary accreditation of the more than 500 private post-secondary education institutions in the Province. The Commission will require registered institutions to post security to protect student fees. Through accreditation, the Commission will recognize institutions who meet specified standards of educational competence. The 15 members of the Commission include representatives from private post-secondary education institutions, public post-secondary education institutions and the business sector.

- entrepreneurship and small business;
- tourism management; and,
- international business.

The School is developing a Co-op Education program which integrates practical work terms in established businesses with academic studies at the University. Future plans include the addition of a Masters Program in Business Administration through the Faculty of Graduate Studies.

Giving the School their full support, Victoria businesses recognize it as a significant resource. They can benefit from the pool of faculty expertise that is available for consultation as well as the pool of trained students and graduates available for hiring on a Co-op or full-time basis.

During 1990/91, the Ministry provided the School of Business with $780,000 in start-up funds and an operating budget of $1.23 million.

EXPANDING TECHNOLOGY ASSISTANCE TO BUSINESSES

Developing new products and processes, improving operational techniques and enhancing productivity are common business goals. However, many businesses do not have the capability to do their own research and development. The Province's Technology Assistance Program (TAP) helps small- and medium-sized companies in the manufacturing, processing and service industries fund research and development projects that are engineering or science oriented. During 1990/91, funding for TAP 1 was $500,000.

The British Columbia Research Corporation administers TAP for the Ministry of Advanced Education, Training and Technology, which pays up to half of each project's costs. Initially, the Corporation also conducted all of the research and development projects funded by the program. However, to broaden the range of projects undertaken and to involve more research and development companies, the Ministry created TAP 2, which uses services and facilities other than those provided by the British Columbia Research Corporation.

During 1990/91, British Columbia Research administered $250,000 under TAP 2, granting 25 projects valued between $1,800 to $18,000. Projects funded included the development of:

- an industrial filter to remove wood preservatives from water;
- a cutaneous communication device for hearing assistance; and
- a cable-car camera system for use in the film industry.

TRAINING EMPLOYEES PAYS BIG DIVIDENDS

Since 1989, the Ministry 's Training Investment Program (TIP) has helped managers provide training for employees by paying up to 60 per cent of the costs. To a lesser degree, TIP also offered training advice, and subsidized worksite modifications to ease the employment and training of persons with disabilities or of women in non-traditional occupations.

Responding to increased interest in its second year, TIP provided $2.8 million in 1990/91, supporting 344 projects: approximately 272 by businesses, 48 by non-profit groups and 24 by local governments.

LABOUR MARKET INFORMATION AVAILABLE

During 1990/91, the Ministry increased its effectiveness in meeting public and private sector demands for labour market information. Colleges and training institutions benefitted from data on the success of graduates in the world of work. Federal and provincial governments used information on projected employment growth and supply/demand imbalances to support the funding of training to address skills shortages. The governments also used this information to designate certain jobs as "critical shortage occupations," which supports the selection of independent immigrants destined for British Columbia.

By producing a quarterly newsletter and a monthly summary of labour market information, the Ministry increased awareness of the need for human resource development and manpower planning strategies that address the needs of a rapidly changing workplace. Publications such as Job Futures helped individuals and career counsellors become more informed about the educational and vocational training needed for particular careers.

CONCLUSION

The Ministry of Advanced Education, Training and Technology plays a lead role in a broad system of advanced education, skill development, labour market adjustment, and science and technology in British Columbia. By integrating its responsibilities for knowledge creation, adult education and training, the Ministry influences the economic and social development of the entire Province.
During 1990/91, the Ministry made strides in achieving its three major goals:

Building individual potential
During the second year of its major program, "Access for All", the Ministry improved opportunities for training and post-secondary education in all regions--especially the fast-growing Fraser Valley. It further increased access to opportunities through the student financial assistance program, the apprenticeship system, the expansion of training spaces for nurses, a special strategy to help Native students, a policy of tuition-free literacy programs and assistance for laid-off employees. The Ministry initiated improvements in a graduate scholarship program and the Scientists in the Schools program by commissioning independent evaluations of them. And it worked through the Youth Council to support projects important to young British Columbians.

Developing and applying new knowledge
The Government of British Columbia introduced a five-year, $420-million Science and Technology Fund, its most significant commitment to applied research and development ever. It invested part of that fund to support the Province's strong involvement in the national Networks of Centres of Excellence Program. It also supported a wide range of science and technology activities, including the building of a hydrogen-powered bus and a computer that anticipates problems and devises solutions.

Being responsive in a changing world
To meet the needs of people in the Province's north, the Ministry established the University of Northern British Columbia. It further responded to increased demand for advanced education by supporting the development of new college campuses and a School of Business at the University of Victoria. It served many individuals and businesses by expanding its all-service Training and Enterprise Centre Network, and subsidizing costs of research and development. It extended support for the vocational rehabilitation of people with disabilities. And to help shape Government decisions, it launched such initiatives as the Private Post-Secondary Education Commission and the British Columbia Human Resource Development Project.

APPENDIX

COLLEGES

1. Camosun College
2. Capilano College
3. Cariboo College
4. College of New Caledonia
5. Douglas College
6. East Kootenay Community College
7. Fraser Valley College
8. Kwantlen College
9. Malaspina College
10. North Island College
11. Northern Lights College
12. Northwest Community College
13. Okanagan College
14. Selkirk College
15. Vancouver Community College

INSTITUTES AND AGENCIES

16. British Columbia Institute of Technology
17. Emily Carr College of Art and Design
18. Justice Institute of British Columbia
19. Knowledge Network
20. Open Learning Agency
21. Pacific Marine Training Institute

UNIVERSITIES

22. Simon Fraser University
23. University of British Columbia
24. University of Northern British Columbia
25. University of Victoria

MINISTRY REGIONAL OFFICES

- A. Burnaby
- B. Cranbrook
- C. Dawson Creek
- D. Kamloops
- E. Kelowna
- F. Matsqui
- G. Nanaimo
- H. Nelson
- I. Port Coquitlam
- J. Prince George
- K. Surrey
- L. Terrace
- M. Vancouver
- N. Victoria

APPENDIX

MINISTRY OF ADVANCED EDUCATION, TRAINING AND TECHNOLOGY
SUMMARY OF PROGRAM EXPENDITURES

($,000)

DESCRIPTION	1988/89 ACTUAL EXPENDITURES	1989/90 ACTUAL EXPENDITURES	1990/91 ACTUAL EXPENDITURES (FORECASTED)
Administration & Support Services	20,551	25,217	26,875
Women's Programs*	676	-	-
Advanced Education Programs			
Operating Contributions - Universities	362,334	374,146	394,351
Matching Funds	10,000	20,000	20,000
Operating Contributions - Colleges & Institutes	329,993	318,985	346,717
Capital Debt Servicing	93,306	96,078	105,430
Distance Education	20,718	18,168	19,063
International Education	490	500	1,375
Access & Enrollment Programs	0	35,070	68,151
Student Financial Assistance	43,476	50,184	62,568
Job Training, Apprenticeship & Labour Market Policy Programs	18,419	22,508	20,571
Science & Technology Programs	13,552	25,144	28,752
TOTAL MINISTRY EXPENDITURES	$913,515	$986,000	$1,093,853

*Women's Programs was transferred to the Ministry of Women's Programs and Government Services during 1989/90.

APPENDIX

FULL-TIME AND PART-TIME ENROLLMENT IN NON-VOCATIONAL PROGRAMS AT B.C. POST-SECONDARY INSTITUTIONS*

($,000)

	1988/89	1989/90	1990/91
Universities			
UBC			
Undergraduate	23,653	24,048	24,931
Graduate	4,196	4,413	4,812
SFU			
Undergraduate	12,693	14,323	14,551
Graduate	1,546	1,600	1,739
UVIC			
Undergraduate	11,182	11,918	12,628
Graduate	1,296	1,340	1,408
Sub-total	**54,566**	**57,642**	**60,069**
Colleges			
Camosun	4,129	4,461	4,435
Capilano	4,653	4,900	4,820
Cariboo	3,127	3,654	5,367 **
Douglas	5,236	5,532	5,626
East Kootenay	656	742	747
Fraser Valley	2,645	2,602	2,722
Kwantlen	3,937	4,137	5,160
Malaspina	2,566	3,340	3,105
New Caledonia	2,023	2,069	2,225
North Island	3,364	2,908	2,750
Northern Lights	620	650	626
Northwest	428	453	495 **
Okanagan	3,965	4,699	5,032
Selkirk	1,010	1,086	1,158
Vancouver	7,771	7,395	5,862
Sub-total	**46,130**	**48,628**	**50,130**
Institutes			
BCIT	13,507	13,531	13,202
Emily Carr	994	1,201	1,102
OLA	5,166	6,286	6,173
PMTI	n/a	n/a	n/a
Sub-total	**19,667**	**21,018**	**20,477**
TOTAL**	**120,363**	**127,288**	**130,676**

Sources: 1989/90 B.C. Post-Secondary Enrollment Statistics (Tables 10 and 70).
1990/91 College Statistical Reports, unedited.

* Due to a change in college and institute reporting procedures it is not possible to present data which directly compares to that presented in the 1989/90 Annual Report.

** Denotes estimates.

APPENDIX

BASE PROVINCIAL OPERATING GRANTS TO B.C. POST-SECONDARY INSTITUTIONS GROUPED BY TYPE OF INSTITUTION

($,000)

	1988/89	1989/90	1990/91
Universities			
UBC	193,784	215,006	233,695
SFU	72,753	81,424	93,559
UVIC	61,116	67,736	77,666
Sub-total	**327,653**	**364,166**	**404,920**
Colleges			
Camosun	21,606	25,096	26,832
Capilano	13,922	16,627	17,942
Cariboo	14,554	19,858	22,728
Douglas	18,359	21,302	24,058
East Kootenay	5,263	6,342	6,695
Fraser Valley	9,073	10,373	11,840
Kwantlen	15,289	18,104	21,243
Malaspina	15,048	18,927	21,626
New Caledonia	12,282	14,197	15,193
North Island	7,687	8,456	8,745
Northern Lights	6,783	8,441	8,800
Northwest	6,412	7,566	8,067
Okanagan	16,410	20,766	24,541
Selkirk	10,148	12,443	12,685
Vancouver	43,685	48,397	52,963
Sub-total	**216,521**	**256,895**	**283,958**
Institutes			
BCIT	57,479	64,556	69,487
Emily Carr	4,974	5,758	6,105
OLA	15,130	17,982	19,149
PMTI	1,695	1,897	2,222
Sub-total	**79,278**	**90,193**	**96,963**
TOTAL**	**623,452**	**711,254**	**785,841**

Source: Ministry of Advanced Education, Training and Technology Fact Book
* Represents OLI only. 1988/89 to 1990/91 represents OLA's operating grant.
**Totals may vary slightly due to rounding.

APPENDIX

THE DISTRIBUTION OF EXPENDITURES FOR THE SCIENCE AND TECHNOLOGY FUND, 1990/91 (FORECASTED)

($,000)

Research and Development		
B.C. Research (Targetted Research)		1,000
Technology Assistance Program		500
Technology B.C. Competition (STDF-AGAR)		8,155
Fellowships		1,225
Ballard Power Systems (hydrogen bus)		1,320
Miscellaneous contributions		933
		13,133
Infrastructure		
Science Council of B.C.		2,900
Discovery Foundation		907
University-Industry Liaison Offices		740
Advanced Systems Institute		1,150
Networks of Centres of Excellence		4,781
Miscellaneous contributions		1,256
		11,734
Human Resource Development		2,717
Public Awareness		673
Special Projects		
KAON		495
	TOTAL	**28,752**

APPENDIX

Spending by region on job training and vocational rehabilitation and the number of apprentices registered, certified and receiving certificates as journeymen.

Region	Vocational Rehabilitation Services*	Clients*	Personal Placement Program	Clients	Disabled Persons Training	Clients
Interior	382,400	195	200	1	15,400	3
North	163,900	101	29,800	4	19,200	5
Van. Island	793,000	337	177,100	18	57,100	13
Lower Mainland	1,846,200	1,098	240,600	25	34,800	13
	$3,185,500	1,731	$447,700	48	$126,500	34

* Does not include clients who were counselled but not yet put into training.
In addition, $1 million was expended to assist Agencies supporting client service and $170,000 was paid directly to colleges for interpreting costs.

Region	Training Investment Program	Projects	Industrial Adjustment Program	Projects	Summer Employment Program	Clients
Interior	721,000	41	381,500	88	1,621,300	1,259
North	265,600	37	306,000	67	697,000	487
Van. Island	657,100	121	381,100	28	1,413,400	825
Lower Mainland	1,177,400	145	881,600	89	2,712,200	2,271
	$2,821,100	344	$1,950,200	272	$6,443,900	4,842

Journeyman Upgrading

A total of $849,000 expended to upgrade the skills of qualified tradespeople.

Apprenticeship Programs:

New apprentices registered in 1990	5,834
Total apprentices in 1990	15,135
Apprentices certified	1,712
Certificates of Qualification issued	2,176